WSET Level 3 Award in Wines

A world of knowledge

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Session 3

Human Influences in the Winery

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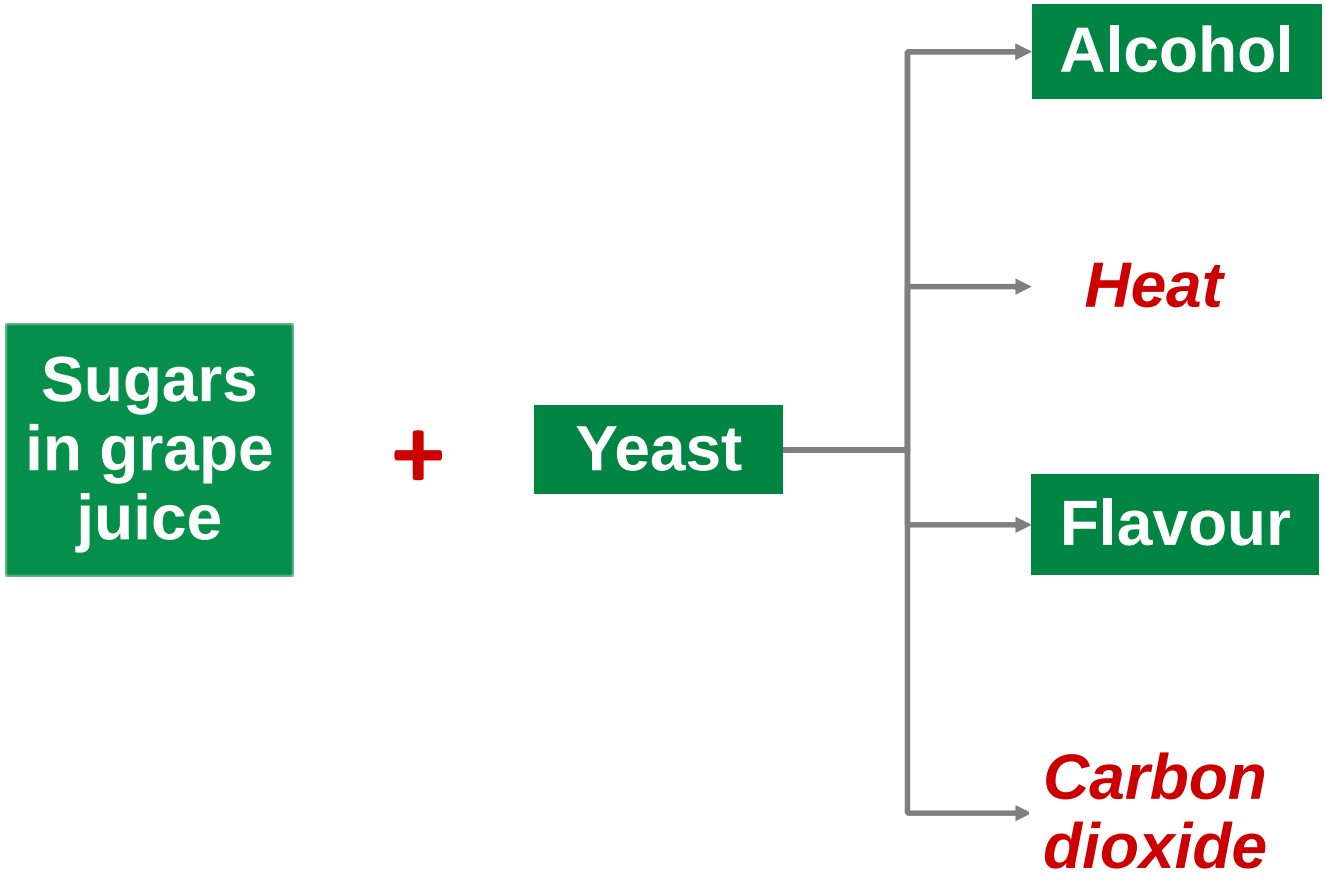
Alcoholic fermentation



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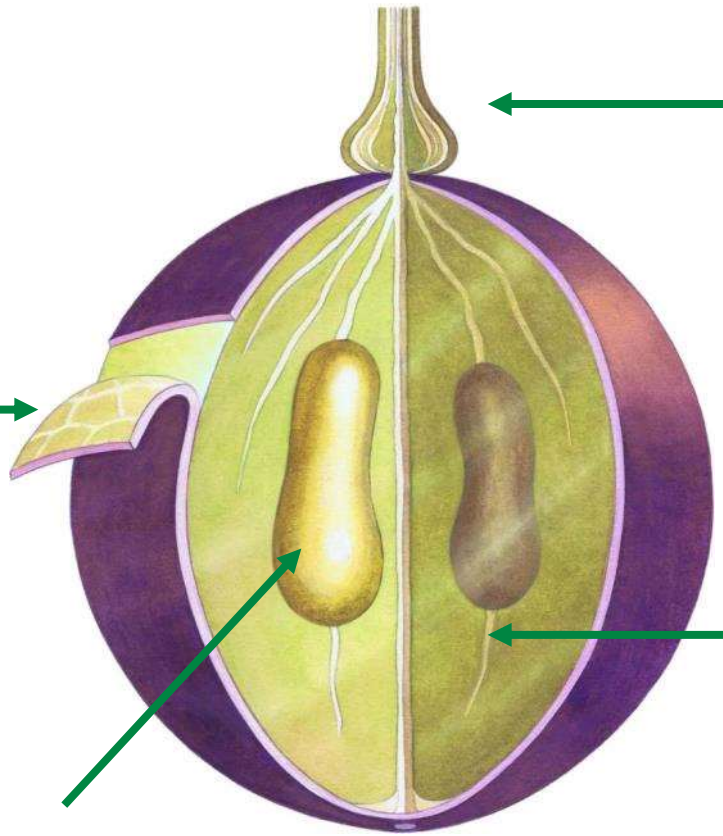
Constituent parts of grapes



Stems
tannins

Skins
tannins
colour
flavour

Pulp
sugars
acids
water

Seeds
bitter oils
tannins

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Grape reception

- risks associated with oxygen
- sulphur dioxide (SO_2)
  - antiseptic
  - antioxidant
- grape selection

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Grape processing

- destemming (if needed)
- crushing
- cold maceration
- pressing

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Adjustments

Enrichment/chaptalisation

- addition of rectified concentrated grape must (RCGM) or sugar

Acidification

- addition of tartaric acid

Deacidification

- addition of various alkaline substances

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Alcoholic fermentation

Yeast

- *Saccharomyces cerevisiae*

Ambient yeast

- winery/grape skins
- ‘complexity’ but unpredictable results

Cultured yeast

- added by the winemaker
- ‘flavour uniformity’ with predictable results

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Alcoholic fermentation

Temperature

- below 5°C (41°F) yeast can't operate
- between 35–38°C (95°F) yeast stop working

White wine

- range 12–22°C (54–72°F)
- cool temperature help retain fruit aromas

Red wine

- range 20–32°C (68–90°F)

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Inert winery vessels

Stainless steel

Concrete

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Winery vessels

Oak

- European or American oak
- level of toasting
- age
- size
  - small
  - large

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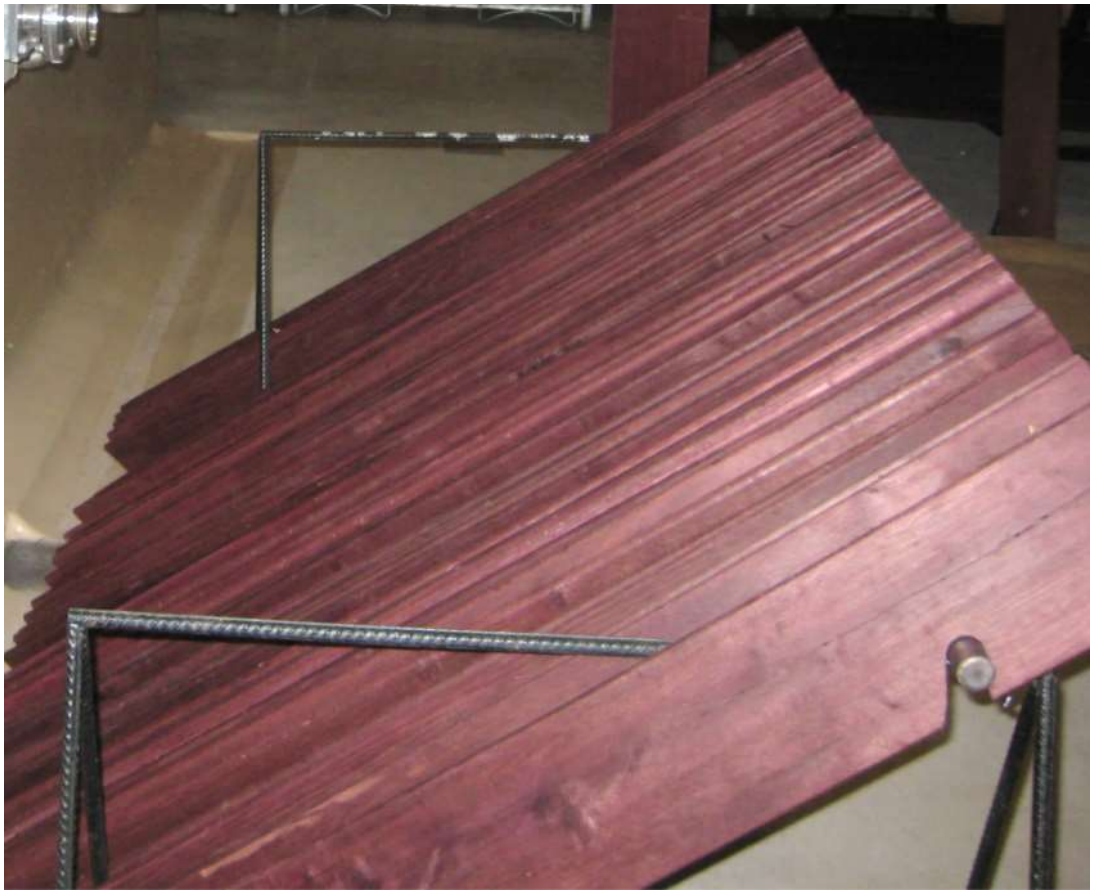
Oak alternatives

Imparting flavour

- oak staves
- oak chips

Replication of the oxidative effects of barrels



Key options during fermentation

- skin contact
- clarification
- fermentation temperature
- choice of vessel
  - inert
  - inert (+ oak)
  - barrels

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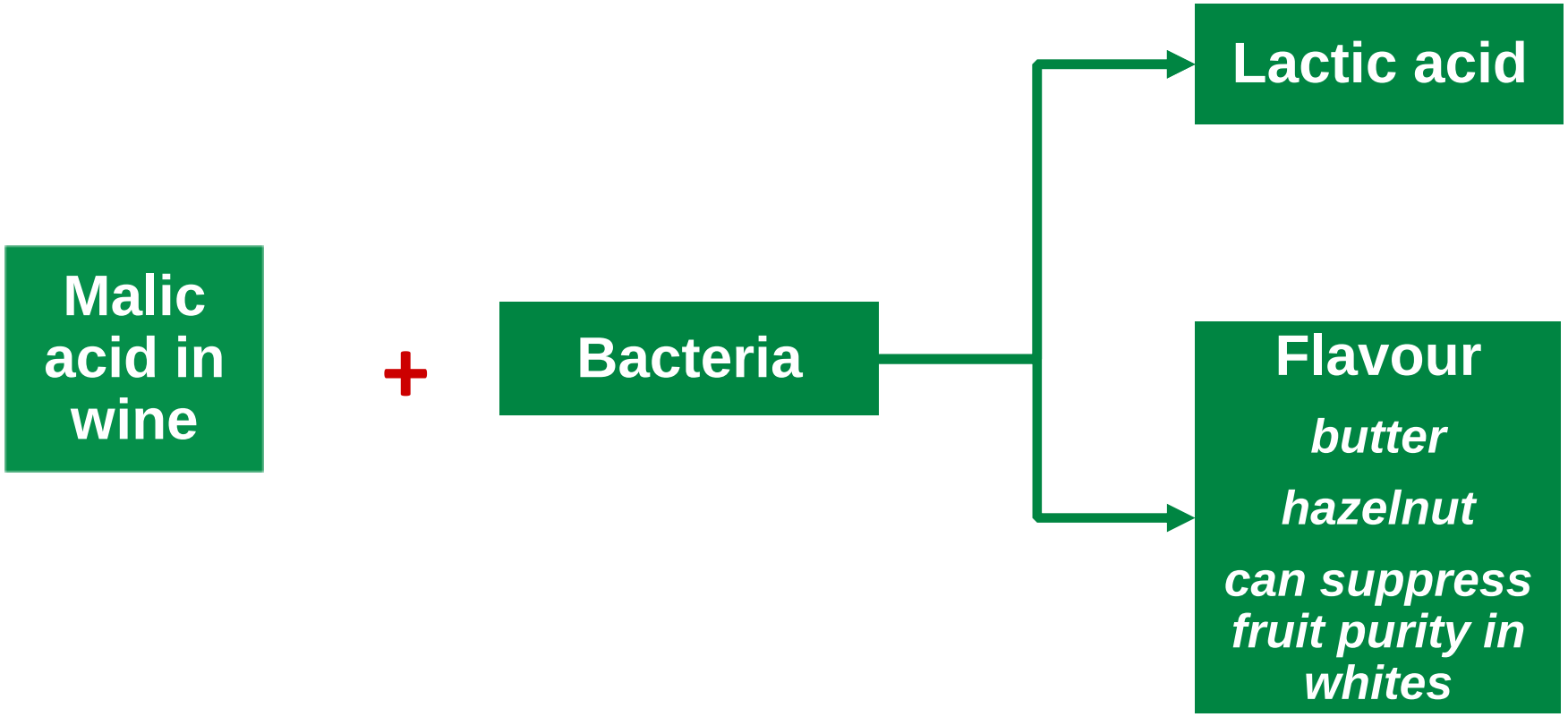
Malolactic conversion (MLC)



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Lees

- sedimentation
- gross lees
- fine lees

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Systematic Approach to Tasting

APPEARANCE		
Intensity		pale – medium – deep
Colour	*white*	lemon-green – lemon – gold – amber – brown
	rosé	pink – salmon – orange
	red	purple – ruby – garnet – tawny – brown

NOSE	
Intensity	light – medium(-) – medium – medium(+) – pronounced
Aroma characteristics	
Primary	
Secondary	
Tertiary	
Development	youthful – developing – fully developed – tired/past its best

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Systematic Approach to Tasting

PALATE	
Sweetness	dry – off-dry – medium-dry – medium-sweet – sweet – luscious
Acidity	low – medium(-) – medium – medium(+) – high
Tannin	low – medium(-) – medium – medium(+) – high
Alcohol	low – medium – high
Body	light – medium(-) – medium – medium(+) – full
Flavour intensity	light – medium(-) – medium – medium(+) – pronounced
Flavour characteristics	
Primary	
Secondary	
Tertiary	
Finish	short – medium(-) – medium – medium(+) – long

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Systematic Approach to Tasting

CONCLUSIONS ASSESSMENT OF QUALITY				
Quality level	faulty – poor – acceptable – good – very good – outstanding			
Balance				
Length				
Intensity				
Complexity				
Level of readiness for drinking / potential for aging	too young	can drink now, but has potential for ageing	drink now: not suitable for ageing or further ageing	too old

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Key options

- pre-fermentation extraction
- extraction during fermentation
- oak inserts
- post-fermentation extraction
- pressing – free run vs press wine

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Pre-bottling maturation

Key options

- no maturation
- medium or long-term maturation

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Blending

- balance
- consistency
- style
- complexity
- price

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Clarification and stabilisation

- sedimentation
- fining
- filtration
  - depth filtration
  - surface filtration
- stabilisation
  - tartrate
  - microbiological
  - oxygen

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Packaging and closures

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